

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A resin composition to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound and a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and wherein the hydrophilic reducing organic compound and the water insoluble thermoplastic resin are dispersed in a hydrophobic thermoplastic resin wherein the resin composition is prepared by:

kneading the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin to form a kneaded compound; and

kneading the kneaded compound comprised of the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin.

2. (Previously Presented) The resin composition of Claim 1, in which the hydrophilic reducing organic compound is present in the range of 0.05~10% by weight, the hydrophilic and water insoluble thermoplastic resin is present in the range of 3~40% by weight, and the hydrophobic thermoplastic resin is present in the range of 50~96% by weight.

3. (Previously Presented) A resin composition to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound, a porous inorganic compound, and a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and wherein the hydrophilic reducing organic compound, the porous inorganic compound and the water insoluble thermoplastic resin are dispersed in a hydrophobic thermoplastic resin wherein the resin composition is prepared by:

kneading the hydrophilic reducing organic compound, the porous inorganic compound and the hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin to form a kneaded compound; and

kneading the kneaded compound comprised of the hydrophilic reducing organic compound, the porous inorganic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin.

4. (Previously Presented) The resin composition of Claim 3, in which the hydrophilic reducing organic compound is present in the range of 0.05~10% by weight, the porous inorganic compound is present in the range of 0.05~10% by weight, the hydrophilic and water insoluble thermoplastic resin is present in the range of 3~40% by weight, and the hydrophobic thermoplastic resin is present in the range of 40~96% by weight.

5. (Previously Presented) The resin composition of Claim 3, in which the porous inorganic compound comprises synthetic zeolite.

6. (Previously Presented) The resin composition of Claim 1, in which the hydrophilic reducing organic compound is a compound selected from the group consisting of ascorbic acids, polyphenols and catechins.

7. (Previously Presented) The resin composition of Claim 1, in which the hydrophilic and water insoluble thermoplastic resin is ethylene-vinyl alcohol copolymer, polyvinyl alcohol having a saponification degree of 95% or higher, or polyamide resin.

8. (Previously Presented) The resin composition of Claim 1, in which the hydrophobic thermoplastic resin comprises polyolefin resin.
9. (Previously Presented) A laminate for packaging liquid foods comprising an innermost layer made of the resin composition claimed in Claim 1.
10. (Previously Presented) A laminate for packaging liquid foods comprising an innermost layer made of a hydrophilic and water insoluble thermoplastic resin and a layer adjacent to the innermost layer made of the resin composition claimed in Claim 1.
11. (Previously Presented) The laminate for packaging liquid foods of Claim 10, in which the hydrophilic and water insoluble thermoplastic resin of the innermost layer comprises ethylene-vinyl alcohol copolymer or polyvinyl alcohol having a saponification degree of 95% or higher.
12. (Previously Presented) A laminate for packaging liquid foods comprised of an innermost layer made of resin having a water vapor transmission rate of not less than 5 g/m²·24 hours at 40°C and 90% RH and a layer adjacent to the innermost layer made of the resin composition claimed in Claim 1.

13. (Original) The laminate for packaging liquid foods of Claim 12, in which the resin layer having the water vapor transmission rate is comprised of polyethylene based resin or polypropylene based resin having a thickness of 30 μm or less.

14.-19. (Canceled)

20. (Previously Presented) A method of producing a resin composition to be used in a multi-layer laminate for packaging liquid foods, comprising the steps of kneading a hydrophilic reducing organic compound and a hydrophilic and water insoluble thermoplastic resin compound, at a temperature not higher than the melting point or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin, to make a kneaded compound, wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and kneading the kneaded compound comprised of the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound with a hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin.

21. (Previously Presented/Withdrawn) A method of producing a resin composition to be used in a multi-layer laminate for packaging liquid foods, comprising the

steps of kneading a hydrophilic reducing organic compound, a porous inorganic compound, and a hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound to make a kneaded compound, and kneading the kneaded compound comprised of the hydrophilic reducing organic compound, the porous inorganic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin.

22. (Previously Presented/Withdrawn) The resin composition of claim 1 wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin.

23. (Canceled)

24. (Previously Presented) A pellet to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound and a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic reducing

organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and wherein the pellet is prepared by:

kneading the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin to form a kneaded compound;

kneading the kneaded compound comprised of the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin; and

forming a pellet from the hydrophobic thermoplastic resin containing the dispersed kneaded compound.

25. (Previously Presented) The pellet of claim 24, in which the hydrophilic reducing organic compound is present in the range of 0.05 ~ 10% by weight, the hydrophilic and water insoluble thermoplastic resin is present in the range of 3 ~ 40% by weight, and the hydrophobic thermoplastic resin is present in the range of 50 ~ 96% by weight.

26. (Previously Presented) The pellet of claim 24, in which the hydrophilic reducing organic compound is a compound selected from the group consisting of ascorbic acids, polyphenols and catechins.

27. (Previously Presented) The pellet of claim 24, in which the hydrophilic and water insoluble thermoplastic resin is ethylene-vinyl alcohol copolymer, polyvinyl alcohol having a saponification degree of 95% or higher, or polyamide resin.

28. (Previously Presented) The pellet of claim 24, in which the hydrophobic thermoplastic resin comprises polyolefin resin.

29. (Previously Presented) A pellet to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound, a porous inorganic compound and a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic reducing organic compound is included in the hydrophilic and water insoluble thermoplastic resin and the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and wherein the pellet is prepared by:

kneading the hydrophilic reducing organic compound, the porous inorganic compound and the hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting

temperature of the hydrophilic and water insoluble thermoplastic resin to form a kneaded compound;

kneading the kneaded compound comprised of the hydrophilic reducing organic compound, the porous inorganic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin; and

forming a pellet from the hydrophobic thermoplastic resin containing the dispersed kneaded compound.

30. (Previously Presented) The pellet of claim 29, in which the hydrophilic reducing organic compound is present in the range of 0.05 ~ 10% by weight, the porous inorganic compound is present in the range of 0.05 ~ 10% by weight, the hydrophilic and water insoluble thermoplastic resin is present in the range of 3 ~ 40% by weight, and the hydrophobic thermoplastic resin is present in the range of 40 ~ 96% by weight.

31. (Previously Presented) The pellet of claim 29, in which the porous inorganic compound comprises synthetic zeolite.

32. (Canceled)

33. (New) A resin composition to be used in a multi-layer laminate for storing liquid foods, comprising:

a kneaded compound comprised of a hydrophilic reducing organic compound, and a hydrophilic and water insoluble thermoplastic resin,

the hydrophilic reducing organic compound being protected by the water insoluble thermoplastic resin compound acting as an oxygen gas barrier for the hydrophilic reducing organic compound;

and

a hydrophobic thermoplastic resin

wherein the kneaded compound is dispersed in the hydrophobic thermoplastic resin,

and

wherein the resin composition is prepared by the steps of:

kneading a hydrophilic reducing organic compound and hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin to provide the kneaded compound; and

kneading the kneaded compound comprised of the hydrophilic reducing organic compound and hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin, so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin.

34. (New) The resin composition of claim 33, wherein the hydrophilic and water insoluble thermoplastic resin is selected from the group consisting of ethylene-vinyl

alcohol copolymers, polyvinyl alcohols having 95% or more saponification, polyamide resins, polyester resins and acetyl cellulose.

35. (New) The resin composition of claim 34, wherein the hydrophilic reducing organic compound is selected from the group consisting of ascorbic acids, polyphenols and catechins, and the hydrophobic thermoplastic resin is selected from the group consisting of polyolefins, polystyrenes, polyvinyl chlorides, polymethacryl resins, ethylene- α -unsaturated carboxylic acid copolymers, ionomers, unsaturated carboxylic acid-modified polyolefins, and cyclo-olefin copolymer.

36. (New) A resin film used in a multi-layer laminate for storing liquids foods, comprising,

a compound of a hydrophilic reducing organic compound, and a hydrophilic and water insoluble thermoplastic resin,

the hydrophilic reducing organic compound being protected by the water insoluble thermoplastic resin compound acting as an oxygen gas barrier for the hydrophilic reducing organic compound;

and

a hydrophobic thermoplastic resin

wherein the compound of a hydrophilic reducing organic compound, and hydrophilic and water insoluble thermoplastic resin are dispersed in the hydrophobic thermoplastic resin,

wherein the resin film is prepared by the steps of:

kneading a hydrophilic reducing organic compound and hydrophilic and water insoluble thermoplastic resin compound at a temperature not higher than the melting temperature or decomposition point of the hydrophilic reducing organic compound and equal to or higher than the melting temperature of the hydrophilic and water insoluble thermoplastic resin to provide the kneaded compound;

kneading the kneaded compound comprised of the hydrophilic reducing organic compound and the hydrophilic and water insoluble thermoplastic resin compound with the hydrophobic thermoplastic resin, so that the kneaded compound is dispersed in the hydrophobic thermoplastic resin; and forming the resin film.

37. (New) The resin film of claim 36, wherein when the film is contacted with a water component, the water component gradually reaches the hydrophilic and water insoluble thermoplastic resin compound through the hydrophobic thermoplastic resin so that the hydrophilic and water insoluble thermoplastic resin compound loses a property of the oxygen gas barrier and the hydrophilic reducing organic compound exhibits an oxygen absorbing function.